

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in this application:

1. (Cancelled)
2. (Previously Presented) The prosthetic valve of claim 24 wherein the anchor structure is formed from a lattice of interconnected elements, and has a substantially cylindrical configuration.
3. (Previously Presented) The prosthetic valve of claim 24 wherein the structural frame comprises a material selected from the group consisting of stainless steel, tantalum, platinum alloys, niobium alloy, cobalt alloy, and nickel-titanium alloy.
4. (Previously Presented) The prosthetic valve of claim 24 wherein the structural frame comprises a polymer.
5. (Previously Presented) The prosthetic valve of claim 24 wherein the biocompatible membrane assembly is formed from a flexible membrane-like material.
6. (Original) The prosthetic valve of claim 5 wherein the membrane-like material is a biological material.
7. (Original) The prosthetic valve of claim 6 wherein the biological material is a vein.
8. (Original) The prosthetic valve of claim 5 wherein the membrane-like material is a synthetic material.
9. (Original) The prosthetic valve of claim 8 wherein the synthetic material is an elastomeric polymer.

10. (Original) The prosthetic valve of claim 8 wherein the synthetic material is a bioabsorbable material.
11. (Original) The prosthetic valve of claim 8 wherein the synthetic material further comprises a reinforcement fiber.
12. (Previously Presented) The prosthetic valve of claim 24 wherein at least a portion of the structural frame is coated with an agent.
13. (Original) The prosthetic valve of claim 12 wherein the agent coating contains a therapeutic agent.
14. (Original) The prosthetic valve of claim 12 wherein the agent coating contains a pharmaceutical agent.
15. (Original) The prosthetic valve of claim 12 wherein the agent coating comprises an agent-eluting layer.
16. (Previously Presented) The prosthetic valve of claim 24 wherein at least a portion of the membrane assembly is coated with an agent.
17. (Previously Presented) The prosthetic valve of claim 16 wherein the agent coating contains a therapeutic agent.
18. (Previously Presented) The prosthetic valve of claim 16 wherein the agent coating contains a pharmaceutical agent.
19. (Currently Amended) The prosthetic valve of claim 16 wherein the agent coating ~~comprising~~ comprises an agent-eluting layer.

20. (Previously Presented) The prosthetic valve of claim 24 wherein at least a portion of the membrane assembly is impregnated with a therapeutic agent.

21. (Previously Presented) The prosthetic valve of claim 24 wherein at least a portion of the membrane assembly is impregnated with a pharmaceutic agent.

22. (Previously Presented) The prosthetic valve of claim 24 wherein the connecting member is a substantially straight member oriented in a direction substantially parallel to the longitudinal axis.

23. (Cancelled)

24. (Previously Presented) A prosthetic valve comprising:

a radially expandable structural frame defining a longitudinal axis, including an anchor structure having first and second open ends, a connecting member having first and second ends, the first end of the connecting member being attached to the second end of the anchor structure, and a cantilever valve strut having first and second ends, wherein the first end of the cantilever valve strut is shaped into a semi-circular loop configuration and is cooperatively associated with the second end of the connecting member; and

a biocompatible membrane assembly having a substantially tubular configuration disposed longitudinally about the structural frame, the membrane assembly including a first end having a first diameter and a second end having a second diameter, wherein the first diameter is greater than the second diameter, the first end of the membrane assembly being attached along the second end of the cantilever valve strut.

25. (Previously Presented) The prosthetic valve of claim 24 wherein the second end of the cantilever valve strut has a substantially straight shape and oriented in a direction substantially parallel to the longitudinal axis.

26. (Cancelled)

27. (Cancelled)

28. (Previously Presented) The prosthetic valve of claim 24 wherein the second end of the tubular biocompatible membrane has a closed end.

29. (Cancelled)

30. (Previously Presented) The prosthetic valve of claim 24 wherein the second end of the tubular biocompatible membrane moves from a substantially open to a substantially closed position by the cantilever valve strut.

31. (Currently Amended) The prosthetic valve of claim 24 wherein the structural frame further ~~comprising~~ comprises a proximal collar attached to the second end of the connecting member and first end of the cantilever valve strut.

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Cancelled)

36. (Cancelled)